



Storm Water Report

The North Coast Regional Water Quality Control Board
5550 Skylane Blvd. Santa Rosa, CA 95403

Volume 1

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Welcome to the first issue of our Storm Water Newsletter

This report is designed to be a source of information and provide storm water resources for industrial permit holders, and the general public. The purpose is to describe the significance of storm water pollution, its effects, and ways to reduce this water quality problem.

As you may know, the Clean Water Act, enacted by Congress in 1972, has led to significant improvements in water quality nationwide. But we still have a long way to go. The pollution that runs off city streets, suburban lawns, factory sites, and farms is the largest remaining contributor to water pollution.

Storm water can quickly become polluted by chemicals, fertilizers, pesticides, and litter it picks up while traveling overland. Even small amounts of pollutants that accumulate on roads, parking lots, and sidewalks are quickly transported into nearby streams, and rivers.

This pollution results in a loss of not only aesthetic values, but also poses threats to public health when drinking water and aquatic life are contaminated. Identifying sources of storm water pollution and keeping them off the ground or away from storm drains is the best and most economical way to keep storm water clean.

Pollution Prevention

The statewide Industrial Storm Water General Permit is intended to prevent or reduce pollutants in storm water runoff. All facilities regulated under the General Permit are required to implement a written site-specific Storm Water Pollution Prevention Plan (SWPPP). One of the major requirements of the SWPPP is to identify and implement Best Management Practices (BMP's) for each potential pollutant and its source.

The SWPPP must include descriptions of the BMP's that will be implemented at your site. It should be very clear: where each BMP will be instituted, and how each BMP will be maintained. Records should be kept to show what was done and when.

Once your plan is implemented you are to check to see if your Plan is effective in reducing or eliminating pollutants from leaving your site in storm water runoff. This is done through your monitoring activities. All monitoring activity should be recorded on forms, and evaluated by the appropriate personnel. If the Plan is not effective, then revisions must be made.



Common Storm Water Pollutants

- **pH**

The pH value of a body of water is vitally important, since most aquatic life can only thrive within a relatively narrow band of pH values (6 to 8). Some sources that can contribute to a change in pH of storm water and waterbodies are cement in concrete pouring, paving and recycling operations, solutions from metal plating, chemicals from printing businesses and other industrial processes, and household cleaners such as bleaches and deck washes.

- **Metals**

Heavy metals like lead, zinc, and mercury, are ingredients in many common products like batteries, fuels, paints, pesticides, and cleaners. When these products are spilled or improperly disposed of, they leave behind pollutants that can be transported into streams by storm water. Heavy metals can be toxic to fish and other aquatic life in streams.

- **Oils and Greases**

Oils and greases can be either petroleum-based or food-related sources. Petroleum-based compounds can be immediately toxic to fish and wildlife, and if they reach our drinking water aquifers, will make us sick too. Food-based oils and greases may not be toxic to us, but they can coat fish gills and insects, and suffocate them.



Covered Oil Barrels

- **Sediments**

Sediment is the most common pollutant present in storm water runoff. When it enters a stream or water body, it can smother fish eggs, fill in habitat, and reduce flood capacity. Sediment can also have other pollutants, such as metals, bacteria and oil associated with it. Leaving cleared land exposed to rainfall is the biggest source, but other sources include logging operations, dirt tracked onto roads from equipment, and pressure washing of vehicles, and driveways.



Tarp over Wood Pile

- **Bacteria and Viruses**

Bacteria and viruses from pet wastes, failing septic systems and agricultural areas can contaminate drinking water and close down swimming and shellfish areas. A group of bacteria called **fecal coliform bacteria** are typically used as the indicators for pollution by more serious disease-causing microorganisms.

- **Nutrients**

In the context of water quality, nutrients are mainly compounds of nitrogen and phosphorus. When nutrients are allowed to enter waterbodies, undesirable effects such as algae overgrowth, oxygen depletion, and channel clogging due to overgrowth of vegetation can occur. This stresses and can eventually kill fish and other creatures in the water. Sources of nutrients can include fertilizers, failing septic systems, and yard and animal wastes.

Best Management Practices

BMPs are a series of actions that are designed to reduce storm water pollution. These actions can take several different forms. Examples of these are:

1. **Behavioral** - For example, sweeping a driveway and placing debris in a dumpster, instead of hosing it into the storm drain.
2. **Procedural** - Such as implementing an inventory control program for hydraulic oil or other lubricants to identify changes in consumption. This type of program can be used to identify maintenance problems, and save the business owner money on equipment down-time and lubricant costs.
3. **Structural** - Such as building a roof over a production area, or installing an oil/water separator.

In general, the behavioral and procedural type BMPs will cost the least to implement and may actually save money over time. Structural BMPs typically cost more to construct, operate and maintain.



Covered Work Station

General Pollution Prevention

- **Containment** – All hazardous materials shall be stored within berms or other secondary containment devices to prevent leaks and spills from contaminating storm water.
- **Oil and Grease** – Oil/Water separators, booms, skimmers or other methods shall be employed to eliminate or minimize oil and grease contamination of storm water.
- **Waste and Material Disposal** – Wastes shall be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants. All waste contained in bins or dumpsters shall be covered to prevent exposure of pollutants. Acceptable covers include, but are not limited to, storage of bins under roofed areas and use of lids or temporary covers such as tarps.
- **Erosion and Sediment Control** – Erosion control methods such as vegetating exposed areas, graveling or paving shall be employed to minimize erosion of soil at the site. Sediment control methods such as detention facilities, sediment control fences, vegetated filter strips, or grassy swales shall be employed to minimize sediment loads in storm water discharges.
- **Debris Control** – Screens, booms, settling ponds, or other methods shall be employed to eliminate or minimize debris in storm water.
- **Storm Water Diversion** – Storm water shall be diverted away from fueling, manufacturing, treatment, storage, and disposal areas to prevent potential pollutants from contaminating storm water.
- **Covering Activities** – Manufacturing, fueling, storage, and disposal areas shall be covered to prevent exposure of storm water to potential pollutants. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings, and temporary covers such as tarps.
- **Housekeeping** – Areas that may contribute pollutants to storm water shall be kept clean. Sweeping, prompt clean up of spills and leaks, and proper maintenance of vehicles shall be employed to eliminate or minimize exposure of storm water to pollutants.



Frequently Asked Questions

SWPPP and Monitoring Program

Q: Where can I find guidelines for developing a SWPPP and Monitoring Program?

A: The Permit has full details on what should be in your SWPPP and Monitoring Program. Section A details the SWPPP, while Section B details the Monitoring Program. If you need another copy of the permit, please fax a request to (707) 576-2220.

Q: Are there any other resources available for aiding development of a SWPPP and Monitoring program?

A: The North Coast Regional Water Quality Control Board tries to provide guidance through our inspections and public outreach, including our newsletter. There are many other resources available in print and online. Please see our resources section on the last page of this newsletter.

Closing or Leaving a Site

Q: What if my facility has closed or moved to a new location?

A: General Permit coverage must continue as long as materials associated with industrial activity remain onsite and are exposed to storm water. Once clean-up activity is completed, and exposure of industrial activities and materials to storm water has been eliminated, submit a completed Notice of Termination and an Annual Report to the Regional Board.

Q: What should I do if my facility has been sold or transferred to a new owner?

A: Submit a Notice of Termination to the Regional Board, and be sure to include the new owner or operator's name, phone number and the new facility name. If facility operations under the new owner require coverage under the General Permit, the new owner must submit a Notice of Intent to the State Board.

Q: Do I still need to file a 2001-02 Annual Report even if I have filed a Notice of termination during the 2001-02 permit year?

A: Yes, you must submit a 2001-02 Annual Report for anytime that your facility was in operation after July 1, 2001, or you will be in violation and subject to penalties. The Annual Report should be sent in at the same time as the Notice of Termination.

Site Inspections and Violations

Q: What should I know about inspections of my facility?

A: In signing the Notice of Intent, you agreed to comply with the General Permit. The permit allows Regional Board, State Board, USEPA, and local storm water management agency staff to inspect your site and to have access to your storm water records related to the General Permit. You have the right to ask for the credentials of an inspector, such as a business card or state employee identification card. Typically, an inspector will review your SWPPP, monitoring plan, and other related documents, walk through your site, and evaluate the effectiveness of BMPs implemented at your site.

Q: When will I be inspected?

A: The majority of our inspections are unannounced. Our staff has been increasing the number of inspections every year, especially in the past two years, so if you haven't seen us yet, we'll likely be there soon.

Q: My site was inspected, and I received a violation letter. Does this mean that I will be fined?

A: Not necessarily. The Regional Board has a progressive enforcement policy with the objective of ensuring a level playing field among all permittees. Before issuing penalties we typically give the discharger an opportunity to come into compliance with issuance of a Notice to Comply or a Notice of Violation. However, there may be some violations that merit an immediate penalty.

Q: My site was inspected, and I received a violation letter, but I can't improve my site by the deadline. Can I get an extension?

A: To apply for an extension, please promptly send a written request detailing why you need the extension. Do not wait for the deadline to initiate a request for an extension. Requests should be sent to the contact person in your letter. You will receive a written reply.



Storm Water Resources

U.S. Environmental Protection Agency
www.epa.gov/water

State Water Resource Control Board
www.swrcb.ca.gov/stormwtr/index.html

North Coast Regional Water Quality Control Board
www.swrcb.ca.gov/rwqcb1/

Storm Water Managers Resource Center
www.stormwatercenter.net

Storm Water Resources Site
www.stormwater-resources.com

Financing Storm Water Management
www.stormwaterfinance.urbancenter

State and Local Guide to Funding Alternatives
www.epa.gov/owow/nps/facts.htm

American Public Works
www.apwa.net

American Waterworks
www.awwa.org

Center for Watershed Protection
www.cwp.org

Municipal Research and Services Center
www.mrsc.org/environment/water/water-s/SW-main.htm

Storm Water Journal
www.forester.net/sw.html

The Storm Water Quality Task Force
www.stormwatertaskforce.org



Storm Water Contacts

For information about the Regional Water Board's Storm Water Program, and to download forms, please visit our web site at:
http://www.swrcb.ca.gov/rwqcb1/Program_Information/npdes.html

You can also reach us directly:

Main Phone # 707-576-2220
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